

AUSTRALIAN *STRATIOMYIDÆ* (DIPTERA), WITH DESCRIPTION OF NEW SPECIES.

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In his revision of the Australian *Stratiomyidæ*, White* lists 30 species belonging to 18 genera. In the following paper the writer proposes six new species, belonging to five genera, of which two genera have not been recognised hitherto in Australia. The apparently rare fly *Negritomyia albitarsis* Bigot, previously known from Papua and Queensland, is recorded from the Northern Territory.

The specimens are all in a perfect state of preservation. Their examination for the purpose of description was made in daylight, with No. 4 ocular and 2 inch objective. Measurements are given in millimeters. The figures were outlined with camera lucida.

Family STRATIOMYIDÆ.

Subfamily BERINÆ.

ACTINA VICTORIÆ, n.sp. (Figs. 1a, 1b, 1c).

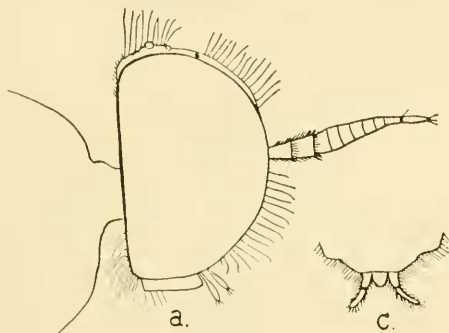
♂. Total length, 6·0; wing, 4·7.

Frons, vertex and thorax dark bronze-green; antennæ black; abdomen dark brown, with brownish yellow areas on segments three, four and five.

Head wide (1·55), wider than prescutum (1·30): eyes separated by a space (the frons) of ·15, widening to ·30 at the vertex; vertex, upper part of frons, and clypeus clothed with long black hairs; lower part of frons and sides of face covered with silvery tomentum, genæ clothed with long white hairs; antennæ inserted slightly above the middle of the head in profile, ·90 long, first and

* These Proceedings, Vol. xli., 1916, Pt. 1, p. 71.

second joints about equal ($\cdot 15$), both covered with stiff black hairs, third joint longest ($\cdot 45$) with seven indistinct segments and a terminal style ($\cdot 15$ in length) bearing three or four long hairs at the apex; palpi black; mouth parts stramineous; eyes only moderately hairy, clypeus and lower part of frons not projecting, and the ocellar plate projecting only very slightly in front of the eyes (Fig. 1a).



Text-fig. 1,

Actina victorior, n.sp.; a, male; c, female.

Thorax densely covered with long black and short pale hairs; scutellar spines long, bases dark like scutellum, the remainder pale yellow; halteres pale stramineous.

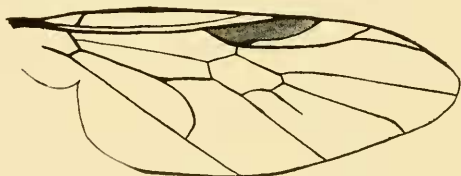
Legs: fore- and mid-legs dark ochraceous, with second-fifth tarsals brown; hind legs similar, but with distal half of femora and tibiae dark brown or suffused with brown.

Wings light smoky, veins and pterostigma brown, third posterior vein extending one-third of the distance to the wing border (Fig. 1b).

Abdomen long and narrow ($3\cdot 75$ long by $1\cdot 35$ wide), the sides clothed with long pale hairs; the greater part of the dorsum of the third, fourth, and fifth segments occupied by a brownish yellow area, roughly triangular in shape, the apex directed posteriorly.

♀. Total length, $5\cdot 0$; wing, $4\cdot 40$.

Frons, vertex and thorax dark bronze-green; antennæ rusty red shading into black beyond the second joint; abdomen bright orange brown with brownish-black segmentations, the first and seventh segments entirely brownish-black; genitalia prominent, bright orange brown (Fig. 1c).



Text-fig. 1b.

Actina victoriae, n.sp., male.

Head (1·30 wide), narrower than in male, wider than prescutum (1·15); eyes (·30 apart) parallel on their inner margins, no long black hairs on vertex and frons and very few on clypeus; genæ as in male, mouth parts yellowish; palpi dark ochraceous; eyes almost hairless; antennæ about ·85 long, first and second joints rusty red and clothed with short stout black hairs, third joint entirely black, or shading from rusty into black towards its apex; style black.

Thorax without long black hairs. Legs dark ochraceous, second and fifth tarsals of each leg and the apices of the femora and tibia of the hind legs shaded brown.

Hab.—Vic.: Ararat, April 1917.

Described from two females and nine males taken on the wing from a small flight at Native Cherry Tree (*Exocarpus*).

Subfamily CLITELLARINÆ.

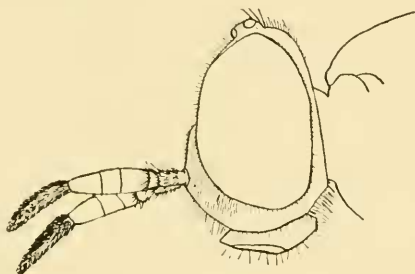
NEGRITOMYIA ALBITARSIS Bigot. (Fig.2).

♀. Total length, 10·11; wing, 9·5.

Clypeus, head, thorax and abdomen black, covered with silvery pubescence; dorsum of thorax, scutellum and scutellar spines with black hairs

Head: eyes nearly parallel along the inner margins, densely

clothed with short silvery pubescence; ocellar triangle prominent, hairy; frons wide (.70), sides clothed with silvery pubescence; clypeus densely pubescent; mouth parts dark brown. Antennæ dark buff, the first and second joints clothed with stout black hairs, third joint bare, with three fairly distinct segments, the first longest, the second longer than the third; style black, densely clothed with black hairs (Fig. 2).



Text-fig.2.

Negritomyia albitarsis, Bigot, female.

Thorax narrower than abdomen, prescutum slightly wider than head, scutum (3.5) wider than prescutum; side spines stout, black, shining; scutellar spines long, black at base, yellowish brown at tip.

Wings dark smoky with clearer areas towards middle and base.

Legs: femora and tibiae black, knees and first tarsi light yellowish brown, remaining tarsi darker.

Abdomen (6 long and 4 wide) black with silvery pubescence, chiefly on sides and median line of segments 3, 4 and 5. Genitalia rather prominent, yellowish.

Hab.—Northern Territory: Darwin, October, 1916.

Three females taken on foliage of garden plants.

(*Note.*—Bigot's specimen (female) is from Papua*. The male is unknown to me. White† describes a male from Mackay, Queensland, in Froggatt's collection.)

* Ann. Ent. Soc. Fr., 1879, p.207.

† These Proceedings, Vol. xli., 1916, Pt.1, p.83.

HERMETIA PALLIDIPES, n.sp. (Figs. 3a, 3b).

♂. Total length, 13; wings, 11.5.

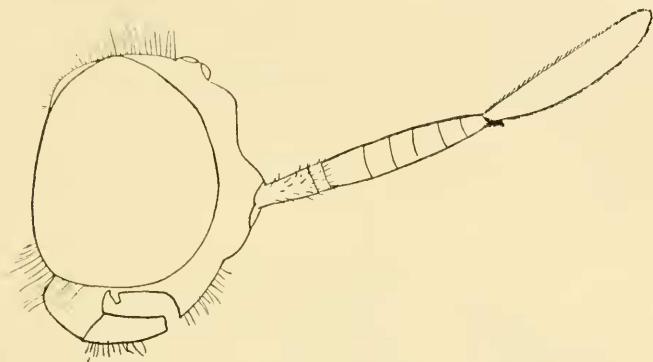
Clypeus, frons, vertex, humeral calli, a small area at the posterior angles of the prescutum, another at the posterior angles of the scutum, the apex of the scutellum, the pronotum, and the episternum pale horn colour; the knob of the halteres and two large spots on the anterior margin of the second abdominal segment pale greenish fading to yellowish after death; thorax black; abdomen black with silvery reflections on second, third, and fourth segments; mouth parts creamy buff; antennæ rusty red.

Head wide (♂, 4.5, ♀, 3.80), wider than long (♂, 2.75, ♀, 2.50); eyes densely pubescent, widely separated; clypeus wide (♂, 2.05, ♀, 1.75), projecting well in front of head, clothed with moderately long white hairs; genæ clothed with long white hairs; frons wide, projecting, the sides converging slightly towards the vertex, an oval, dark area, as long as the frons is wide, occupying the middle of the frons; ocellar tubercle small (1.40 wide), black, with a few dark hairs, a small area above it dark; vertex wide (♂, 2.0, ♀, 1.25) with numerous long white hairs. Antennæ 5 mm. in length, first joint (1.55) nearly four times as long as second, proximal half black, the remainder rusty red like the second, both joints widest at apex and clothed with short, stout, black hairs; third joint clothed with golden pubescence, long (2.0), tapering gradually to the apex, with six indistinct segments, the first three rusty, the others shading into dark brown; style as long as third joint, dark brownish black, convex and densely clothed with short stiff black hairs on one side, concave and bare on the other. (Fig. 3a).

Thorax finely punctate; prothorax small, narrow (1.35), inconspicuous, glabrous; prescutum (2.85) much narrower than head, clothed with white hairs (longest on sides), and a few black hairs; scutum (3.5) wider than prescutum; scutellum not spined (generic character), rounded at the apex, clothed with short hairs above and longer hairs on the sides.

Legs: femora black, fore- and mid-tibiæ with proximal half

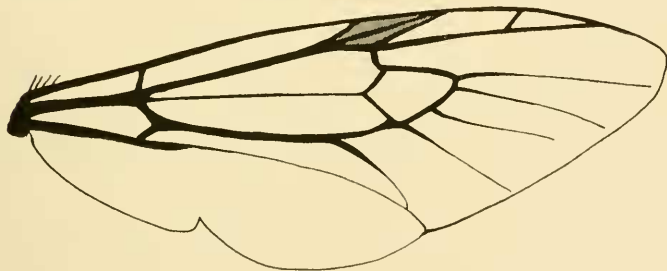
creamy, remainder suffused with light brown, densely clothed with short white hairs; tarsi creamy buff, hind tibiae with apical two-fifths dark brown, otherwise like fore- and mid-tibiae. Wings smoky brown, lighter near base, nervures darker; base of large



Text-fig. 3a.

Hermesia pallidipes, n.sp., male.

nervures setose, surface of wing clothed with minute hairs, those on the anal lobe longest, pterostigma small, as dark as nervures. Venation as shown in Fig. 3b.



Text-fig. 3b.

Hermesia pallidipes, n.sp., male.

Abdomen at widest part, *i.e.*, the second segment, as wide as scutum, tapered gradually to the truncate apex; first segment with short dusky and long white hairs; second, third and fourth segments broadly margined posteriorly with silvery pubescence, the

remainder of each segment clothed with short black pubescence, fifth segment black.

♀. Similar to ♂. Antennæ about 4 mm. long, first and second joints dark buff, the former (·40) twice as long as the latter; vertex less hairy than in male, abdomen relatively shorter and broader; silvery pubescence on abdomen less conspicuous.

Hab.—Northern Territory: Darwin, 13th Feb., 1915.

Described from one male and one female, taken on foliage of garden plants.

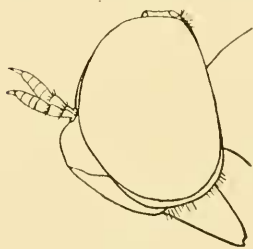
(*Note.*—This genus has not been recorded previously from Australia.)

Subfamily STRATIOMYINÆ.

ODONTOMYIA PALLIDA, n.sp. (Figs. 4a, 4b).

♂. Total length, 7; wing, 5·75.

Head wider than long (2·55 by 1·90); eyes: upper half lighter-coloured and more coarsely faceted than lower, widely separated below, converging immediately above the insertion of the

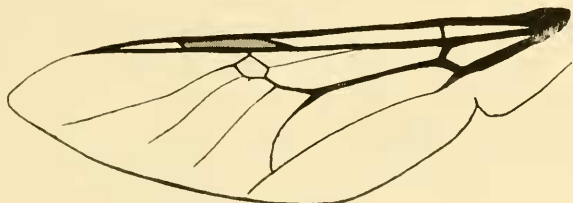


Text-fig. 4a.
Odontomyia pallida, n.sp.,
male.

antennæ; antennæ dark ochraceous, arising about the middle of the head in profile, ·90 in length, first and second joints equal in length, fringed with a few short stiff hairs at apex, third joint long with four indistinct segments and a short terminal style; clypeus light stramineous, prominent, triangular, bare; genæ light stramineous, with a few short hairs, parafacials prominent; proboscis brownish black; ocellar plate black, longer than wide, with a few short golden hairs and broad scales (Fig. 4a).

Thorax blackish, completely covered with short golden yellow hairs and broad scales, producing a brassy appearance, apex of scutellum dark ochraceous, rounded and armed with two very small spines, humeral calli and pleura dark stramineous, sternum blackish. Halteres pale greenish yellow. Legs uniform dark stramineous.

Wings hyaline, veins and pterostigma pale yellowish; the posterior veins, excepting the base of the first and fourth, very indistinct, only a vestige of the third, the fourth issuing from the second basal cell (generic character), none reaching the wing border. (Fig. 4b.)



Text-fig. 4b.

Odontomyia pallida, n.sp., male.

Abdomen pale stramineous, anterior half of first segment dark brown medially, this area becoming narrower and obscure posteriorly, scarcely visible in the anterior border of the second segment, but darker and wider posteriorly, widening and occupying nearly the whole of the third and the entire fourth segments.

10 ♀. Unknown.

Hab.—Northern Territory: Darwin, July, 1918. Type unique.

ODONTOMYIA OBSCURA, n.sp. (Figs. 5a, 5b).

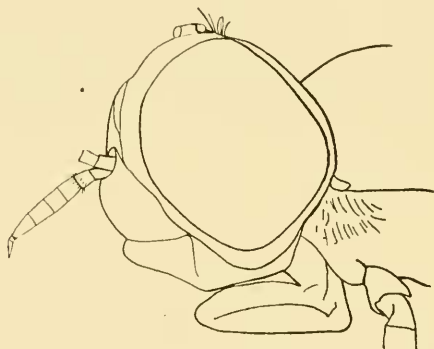
♀. Total length, 12; wing, 9.

Head: eyes finely faceted throughout, widely separated, converging from 2 mm. about the middle of the frons to 1.45 mm. at the vertex. Vertex, ocellar plate, and upper part of frons black, with a few short golden hairs; lower part of frons, the clypeus and genæ dark stramineous; proboscis black; frons with a deep median suture extending from the ocellar plate to the insertion of the antennæ; antennæ arising slightly above the middle of the head in profile, 1.5 in length, rusty red freckled with white, bare excepting for a few short stout hairs at apex of second joint; first and second joints equal in length (.20), third joint nearly five times as long (.95), style short (Fig. 5a).

Thorax black, clothed with short golden hairs, longer towards

the sides; posterior border of scutellum rounded, dark stramineous, with two moderately long spines and some long golden hairs; pleura and halteres pale stramineous; sternum blackish.

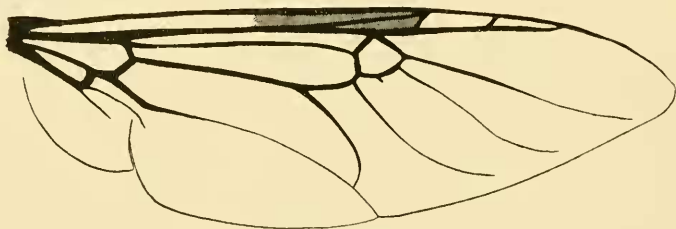
Legs dark ochraceous, tarsi of hind legs rusty.



Text-fig. 5a.

Odontomyia obscura, n.sp., female.

Wings hyaline, costa and sub-costa dark ochraceous, other veins and the pterostigma brown; third posterior vein reduced to a short spur, none of them quite complete (Fig. 5b).



Text-fig. 5b.

Odontomyia obscura, n.sp., female.

Abdomen: first segment dark brownish black with greenish yellow spot at each side; second segment with triangular brownish black mark occupying about half the segment, the remainder brownish, with obscure greenish blotches; third segment similar; fourth segment chiefly dark brownish black, sides similar to segments 2 and 3; fifth segment chiefly dark brownish black, remain-

der mottled with brown and greenish; on the ventral side the first segment greenish yellow, the remaining segments dark brown.

♂. Unknown.

Hab.—Northern Territory: Darwin, 4th June, 1916. Type unique.

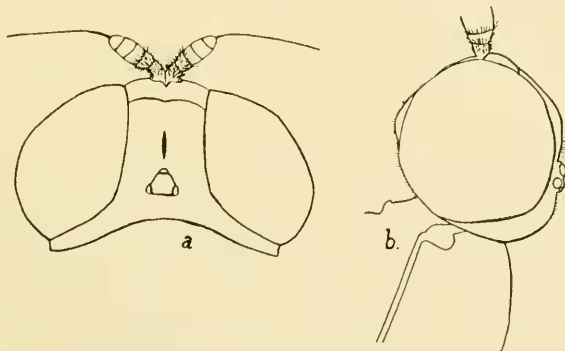
Subfamily SARGINÆ.

SARGUS GSELLI, n.sp. (Figs. 6*a*, 6*b*, 6*c*).

♀. Total length, 7.5; wing, 6.0.

Head, thorax and abdomen metallic peacock blue to metallic cyanine blue, lower part of frons silvery, clypeus black, mouth parts yellowish.

Head wide (2.40), wider than presepium (1.60); eyes bare; antennæ pale rusty, arising from about the middle of the head in profile; first and second joints about equal in length (.10), clothed with short stout hairs; third joint three times as long as the first with two long hairs at apex; arista long (.90), terminal; frons convex, .65 wide, increasing to .80 at vertex, almost hairless, a cleft-like suture down median line from ocellar triangle to near the insertion of the antennæ. Ocellar triangle prominent, occupying about one-third of the width of the vertex; clypeus black, almost hairless; proboscis stramineous. (Figs. 6*a* and 6*b*).



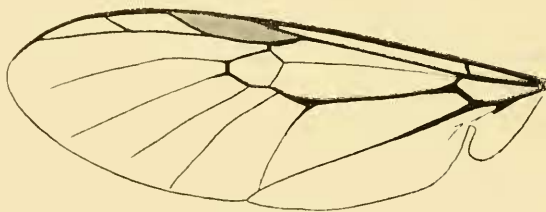
Text-figs. 6*a*, 6*b*.

Sargus gsellii, n.sp., female.

Thorax with fairly prominent humeral calli, nearly parallel

along the sides, 1.75 wide; scutellum bluntly rounded behind, the whole thorax lightly clothed with short pale hairs.

Legs: fore legs with coxæ, trochanters and tarsi pale stramineous, distal half of femora and proximal half of tibiæ suffused with brown, the remainder pale stramineous, mid legs similar, with entire tibiæ blackish; hind legs, coxæ and distal half of femora blackish; tibiæ and tarsi pale stramineous suffused with brown. Wings pale smoky, veins and pterostigma dark brown; venation as shown in Fig. 6c.



Text-fig. 6c.

Sargus gselli, n.sp., female.

Abdomen about as wide as head, parallel on the sides, posterior margin of segments bordered with short white hairs. Genitalia prominent.

Hab.—Northern Territory: Bathurst Island, October, 1916. Type unique.

Named in honour of Reverend Father Gsell, whose hospitality and cordial assistance are freely extended to visitors to this locality.

The intense colouring of this species renders it a conspicuous object. Hitherto the genus has been known in Australia by only one described species, *S. meridionalis* White. There are one or two additional species in the Australian Institute of Tropical Medicine, Townsville, from North Queensland (Kuranda).

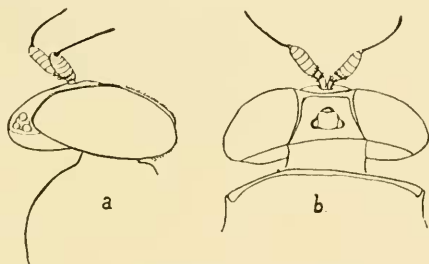
Subfamily PACHYGASTRINÆ.

WALLACEA DARWINI, n.sp. (Figs. 7a, 7b, 7c).

♀. Total length, 4.25; wing, 4.

Head, thorax, abdomen, femora, tibiæ black; tarsi, wing, veins, pterostigma, antennæ ochraceous; wings hyaline.

Head wide (1.65), as wide as presentum, eyes finely faceted, nearly parallel on inner margins, with scattered, fine, whitish hairs; clypeus glossy black, convex, depressed in the median line, with a few short, silvery and black hairs, bordered laterally by a narrow fringe of silvery pubescence; genæ greatly reduced, clothed with blackish hairs; antennæ inserted above the middle of the head in profile, pale rusty, covered with short hairs, first joint short (.048), as wide as long, second joint about as long as first, widest at apex, apices of first and second joints fringed with short, stiff hairs, third joint long (.304), widest in the middle, with five fairly distinct annulations, arista long (.60) arising from a raised tubercle, densely clothed with short white hairs; frons wide (.45), glossy black, a few hair-like whitish scales near the depressed median line; ocellar plate prominent, occupying more than half the width of the vertex, black, rugose, with a few black hairs; vertex as wide as frons, with a few black hairs. (Figs. 7a and 7b.)



Text-fig. 7a, 7b.

Wallacea darwini, n.sp., female.

Thorax widest at insertion of wings (1.85); humeral calli prominent, on either side of the scutellum there is a prominent disc-like process (prealar callus) projecting (.15) horizontally from the thorax; scutellum large, (.75 long), triangular, armed with two long (.30), stout, apical spines (generic character), and about seven somewhat irregular and smaller stout spines on either side, a patch of silvery scales near apex. The whole upper surface of thorax and the pleura clothed with moderately short, stout, black

hairs and narrow silvery scales, the latter giving the appearance of silvery dusting; sternum clothed with silvery hairs; the entire thorax and abdomen minutely punctured. Wings hyaline, principal veins thickened, the three posterior veins all reaching the wing border. Halteres with brownish stem and stramineous knob (Fig. 7c).



Text-fig. 7c.

Wallacea darwini, n.sp., female.

Legs: forelegs black, excepting joints and proximal ends of tibiæ, which are brownish, tarsi densely clothed with short, stout, black hairs; mid-legs black, excepting apices of femora and the

first four joints of the tarsi, which are ochraceous, fifth joint and claws dark. tarsi clothed with short, stout, black hairs; hind-legs similar to mid-legs. Pulvelli and empodia large.

Abdomen wide (2.75), wider than long, clothed with black hairs (silvery in some lights), a conspicuous patch of silvery scales on the dorsum of the fifth segment, except in the median line, similar but fewer scales on dorsum of fourth segment, nearly absent from third segment, a smooth bare patch in the middle of the anterior margin of the fourth segment, wider and occupying the whole of the middle of the fifth segment. Genitalia conspicuous.

♂. Similar to ♀. Total length, 3; wing, 3.

Head wide (1.25), wider than presentum (1.15), frons wide (.320).

Thorax 1.30 at insertion of wings.

Legs similar to ♀, excepting that the tarsi of mid-legs are ochraceous. Halteres brownish, knob white.

Hab.—Northern Territory: Darwin, June, 1918. Both species were taken on a citrus leaf.

(*Note.*—This genus has not been recognised hitherto in Australia.)